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POTENTIAL ECONOMIC AND FISCAL EFFECTS OF A LAND USE POLICY FOR THE COMMONWEALTH OF PENNSYLVANIA

POTENTIAL ECONOMIC AND FISCAL IMPACTS OF A LAND USE POLICY FOR
THE COMMONWEALTH OF PENNSYLVANIA

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a supplementary study of the
Pennsylvania Land Policy Project

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PREFACE

In preparing the report, "A Land Use Strategy for Pennsylvania", it became clear that several study elements warranted more extensive treatment than would be possible in the principal report. Accordingly, supplementary studies were commissioned to examine the legal underpinning for a Pennsylvania land use program; consider the economic implications of such a program; and evaluate the experience of other State land use programs as they bear on the needs and circumstances of the Commonwealth.

The three studies are:

Laws Which Regulate Land Use In Pennsylvania
by Thomas M. Schmidt

Potential Economic and Fiscal Impacts of A Land Use Policy for the Commonwealth of Pennsylvania
by Benjamin H. Stevens

State Land Use Programs: Issues and Options
by Raymond R. Christman

A fourth publication, "Expectations of the Land: The Pennsylvania Land Use Attitude Survey", will present attitude survey data and results as a separate from the principal report.

Copies of these publications are available through the Pennsylvania Land Policy Project.

Preparation of these studies would not have been possible without the assistance of the Rockefeller Foundation, New York, N.Y.; the William Penn Foundation, Philadelphia, Pennsylvania; and the Richard King Mellon Foundation, the Allegheny Foundation, and the Laurel Foundation, all of Pittsburgh, Pennsylvania. The financial support of these institutions is gratefully acknowledged.

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POTENTIAL ECONOMIC AND FISCAL IMPACTS OF A LAND USE POLICY
FOR THE COMMONWEALTH OF PENNSYLVANIA

A. Introduction

It has become accepted practice to subject proposed public policy to some form of cost-benefit analysis. A general land use policy for Pennsylvania warrants such an analysis and will eventually be subjected to one. But even a preliminary attempt to measure the costs and benefits of such a policy is well beyond the scope of the present discussion.

The intention here is rather to outline the economic and fiscal effects which must be considered as part of measuring both costs and benefits. Obviously, there are many other costs and benefits which are noneconomic in the sense that they are social, environmental, or otherwise not directly registered in dollar terms. The existence of such noneconomic impacts is, after all, the major basis for public planning. Nevertheless, this partial outline for analysis will include the discussion of selected noneconomic factors because of their importance in the overall evaluation and because they may, indirectly, result in fiscal and economic costs and benefits which can eventually be measured.

At the outset it is important to understand one underlying assumption. This is the assumption, or faith if one prefers, that the Commonwealth of Pennsylvania, its people, businesses, and governments will receive benefits from an integrated state-wide land use policy which exceed its costs, at least in the long run. To the contention that "in the long run we are all dead", the only reply is that if this is so, planning is useless. Rather, the assumption is based on the belief that the Commonwealth will be left to later generations either to contend with or to enjoy. The choice will depend on what is done now, and in the near future, to control

development and preserve the best of Pennsylvania's landscape and environment.

Given the foregoing assumption, one could argue that there is no need for further discussion. However, the costs and benefits of state-wide land use policy will doubtless fall unequally on the various regions of the state, different social and economic groups of its residents, various types of businesses, and assorted levels and locations of governments. Thus, although it is assumed that the ultimate balance sheet will show that intelligent land use policy applied generally across the Commonwealth will generate more benefits than costs, the benefits are not likely to be equally enjoyed nor the costs to be equally suffered.

Concentration on economic and fiscal effects probably serves to emphasize the potential inequality in the distribution of costs, which are dollar items in the accounts of particular persons and governments, relative to benefits which are mostly noneconomic and will be widely enjoyed by much of the citizenry. This emphasis should be viewed as a way of identifying impacted groups or areas and starting to deal with both the political issues and methods of redistribution of costs which considerations of fairness would dictate. In fact, part of the overall land use policy will have to be directed to redressing some of the economic and fiscal imbalances which such a policy may cause.

As a first step, it is necessary to separate the discussion of economic and fiscal effects even though they are interrelated. Economic effects are arbitrarily defined as effects on the income, wealth, employment, standard of living, and other aspects of the economic well-being of individuals and firms. Fiscal effects are defined here as effects on the revenues of state and local governments and their costs of providing public services. Questions of

both the general magnitude and equity in the distribution of both economic and fiscal consequences will be considered. Unfortunately, specific quantitative measures cannot be given at this point. They will have to be a major component of later studies of economic and fiscal effects.

B. Economic Impacts of a State-wide Land Use Policy

The long run economic effects of an integrated land use policy for the Commonwealth will almost surely be positive. This assumption does not appear to be difficult to justify. Anything which makes Pennsylvania a better place in which to live will ultimately make it a better place in which to work or to run a business.

However, in the short run, some economic dislocation may occur. And the short run is important when the public is faced right now with unemployment, energy shortages, and high prices. An integrated land use policy is not likely to mitigate any of these problems. Therefore, it may have a lower priority than other possible Commonwealth actions in the minds of many of the public.

To the extent that the public conceives that such a policy may have short-run dampening effects on economic growth, present acceptance of the policy may be limited. Therefore, it is important to deal with possible misconceptions about the effects of land use policy while still recognizing that certain consequences should be expected which may be economically costly or beneficial to particular people, industries, or regions of the state.

1. Extractive Industries

Stricter state-wide land use controls might be expected to have negative effects on coal mining and the production of oil and other minerals. However, these industries are already heavily circumscribed in their operations by controls on strip mining, acid

mine drainage, and other environmental effects of resource extraction. Therefore, while it is possible that the proposed land use policy might further restrict mining activities in areas to be designated as wilderness or otherwise slated for conservation, it is unlikely that the proposed policies will have significant additional effects. Actually, the increasing mechanization of the mining industry is likely to continue to have much more relative effect on mine employment than any further environmental restrictions. In fact, Pennsylvania's total production of coal has remained at about 80 million tons over the past few years, while mine employment has fallen by a third. One might argue that the national energy needs for "project independence" could and should be met in part by a substantial expansion of coal mining in Pennsylvania. However, because of cost factors as well as the sulfur content of Pennsylvania coal and other environmental considerations, most of this expansion will instead probably take place in the West.

Most other extractive industries likewise will be little affected. The major exception may be sand and gravel pits which are almost universally controlled where there is zoning but which will have to be placed under controls in areas where there has been little or no land use planning. This will cause some local disruption of the industry. But the high weight-to-value ratio of these products requires that the industry be permitted to operate somewhere in most local areas of the Commonwealth, as long as least-damaging sites can be found.

2. Heavy Manufacturing Industries

Steel production (including the coking of coal), petroleum refining, petro-chemicals, and pulp and paper are already under heavy environmental restriction. Furthermore, the first three of

these industries are generally urban in their location and, therefore, subject to careful land use control at most present and potential sites. Even the paper industry, in Pennsylvania, is relatively urbanized.

The one facet of a state land use policy which might have an impact on the future expansion of two of these industries is the more stringent protection of wetlands and coastal areas. Since these areas are natural sites for petroleum and petro-chemicals and their associated complexes of industries, their expansion could possibly be restricted.

Other environmental concerns might well restrict them anyway, however, since a major expansion of these industries in Pennsylvania probably depends on the construction of a deep-water or off-shore port facility in or near the Delaware estuary. Construction of such a facility would have even more potential effect on the states of New Jersey and Delaware, neither of which are likely to be very enthusiastic about such a development.

In evaluating the economic impact of petroleum refining and petro-chemicals, it must also be kept in mind that new facilities in these industries provide very little employment relative to the size of the investment or the potential for environmental damage. This is not to underestimate the importance of these industries to the economy of the Commonwealth and the fiscal base of a few communities. Nor is it to deny that Pennsylvania is a natural location for serving the East Coast market and that some expansion of facilities should take place. Rather it is to suggest that a land use policy should allow for orderly and reasonable expansion while reserving judgment on a possible dramatic increase in the concentration of these industries, especially in the Delaware Valley.

3. Other Manufacturing

This large group of industries is also heavily urban but much more widely spread throughout the Commonwealth than extractive or heavy industry. It includes many of the industries which are "wanted" by smaller towns and rural areas to provide renewal or growth in their economic base. A land use control policy is not likely to affect such industry except in cases where areas are to be preserved from all but the most restricted development. However, even in less-developed areas where most manufacturing activities might generally be allowed, zoning and site restrictions newly imposed by state land use policies might reduce the choice of possible sites and discourage some manufacturers.

However, the experience in many states, particularly in recent years, suggests that most manufacturers are almost as interested in their neighbors and community as are householders in selecting their locations. Although there may have been a period during and after the war when plants moved to those places where the least restrictions were placed on their activity, recent experience shows that well-planned industrial areas in well-planned communities are likely to be more attractive to long-term stable manufacturers.

The type of industrial development which the Commonwealth needs and wants is not likely to be put off, and may even be attracted, by general state-wide land use control. However, there could be dampening effects on industrial growth if insufficient numbers of sites were made available at or near major highway interchanges which are the preferred locations for new plants generally.

This seems unlikely, at least in the already urban or partially developed areas of the Commonwealth where there is often an

excess of industrial zoning. But, depending on the specifics of the policy, certain areas may find their hopes for industrial growth thwarted. And industries which might prefer locations in such areas, perhaps to take advantage of lower labor costs, may choose to locate in other states.

Such effects are, naturally, impossible to predict in the abstract before the specifics of the policy and plan to be adopted by Pennsylvania are fully known. It is likely that a rational land use policy for the benefit of the Commonwealth as a whole should require that certain regions be protected from virtually all development, including industry. At the same time, the Commonwealth will have to be prepared to deal with the economic and social problems of such regions. The fact that they may be areas which were already declining does not mitigate this responsibility.

4. Research and Other Light Industry

Research, health, and other high-level professional service industries, which provide an increasing proportion of employment in Pennsylvania and nationwide, are generally attracted by areas with a high level of environmental amenities. While there are necessary social, educational, and cultural conditions for growth in research-related activities, environmental quality is the location factor provided copiously by nature to Pennsylvania and irreplaceable if lost.

Such activities are not likely, in the near future, to be major employers of a large portion of Pennsylvania workers. But if experience in New England and California is a guide, research-based industry can spin off related light manufacturing industry. This has generally not happened as rapidly as some have predicted or hoped. And the spin-offs, once they move into mass-production of standardized products, may themselves move South. This has cer-

tainly happened in the electronics industry.

Nevertheless, a continuing base of research-related employment can be expected to remain once it is established. And the gradual growth of such activities in Pennsylvania in the recent past forms a basis for optimism.

5. Recreation

Recreation, including second-home development, has a strong potential in the Commonwealth. However, this is an industry which often "eats its own tail" by destroying those environmental characteristics and attributes of an area which made it attractive for recreation in the first place. One need only compare the worst of New Hampshire with the best of Vermont or watch the past destruction of Florida to understand the need for careful land use planning of recreational areas.

Recreation and second-home development are also not an unmixed blessing for the economy of local areas. Seasonal unemployment and the relative volatility of recreation expenditures in comparison with variations in the economy as a whole, makes recreation less attractive than many other activities as an economic base.

Nevertheless, recreation-related activities under strong land use controls can be very compatible with environmental preservation. And they can provide a reasonable employment base in areas which would be unlikely to undergo industrial development in the foreseeable future. Such environmentally-controlled recreation development has been a major goal of land use and economic policy in Vermont and Hawaii.

Northeastern Pennsylvania is somewhat different from other less-accessible recreation areas which may be poorly located relative to markets, materials, and business services. In fact, this area has enjoyed quite rapid industrial growth in the past decade.

Its access to New York and Philadelphia make second-home development pressures especially strong. Together, these forces will provide a real challenge for state-wide land use policy.

Accurate data is difficult to obtain, but it is probably true that, at present, the recreation, tourist, and second-home industries are a relatively minor part of the total state economy, in comparison to manufacturing, mining, and agriculture. They are, however, part of the export base of the economy, because they attract outside visitors and their expenditures into the state and, in part, because they keep the recreation and vacation expenditures of Pennsylvanians from leaving the Commonwealth.

Another way to view the second-home and recreational potential is to consider the fact that Pennsylvania, like all states, must be prepared to accommodate a certain amount of growth. It is now clear that attempts by either state or local governments to impose restrictions that effectively bar any new development are not likely to be supported by the courts. However, strong planning restrictions, including requirements that development be based on the availability of services, can make such development orderly and compatible with environmental preservation.

Given the choice between recreational development and year-round housing, many communities would choose the former. This would be true even if it was understood that some of the seasonal housing would become year-round residences if there were sufficient local economic activity to provide year-round employment. This does not mean, of course, that a community or state which accepts or even encourages seasonal housing will be free of further pressure for permanent growth. Nevertheless, these two types of development are, to some extent, substitutable; and the potential exists in Pennsylvania to capture an increasing share of the second-home market in the Northeast.

6. Agriculture

Agriculture presents both an opportunity and a challenge for land use policy. The policies of some states are, in part, designed to protect and promote continuing agricultural land use as an environmentally desirable use of land. With the great current and potential market for U. S. agricultural products, this is an economically-sound approach to land use control.

In some areas, environmental problems arise because the nitrate load generated by agricultural fertilizers may create unacceptable pollution levels.

Fortunately, the use of artificial fertilizers and pesticides appears to be less important in Pennsylvania agriculture than in the the agriculture of the Mid-West, South and Plains states. Dairy and poultry raising as currently practiced in the state, and the field crop agriculture of Lancaster and surrounding counties do not appear to generate a serious problem. Therefore, a land use policy directed toward the maintenance of farming should have only minor conflicts with other environmental controls.

The challenge, of course, is that the Commonwealth's best agricultural land is increasingly threatened by economic growth and residential development in the Harrisburg-York-Lancaster region. Land use and tax policy can preserve agricultural land both for its economic value, and as a means of channeling development into orderly patterns. But the policies must be cleverly designed as long as agriculture, even at its best, cannot return as much to the landowner as development.

7. Atomic Power

As part of a national policy of energy independence, it is likely that there will be a major expansion in atomic power production during the next 50 years. After that, time fusion energy,

which has much fewer potential environmental effects, will increasingly provide new sources of energy.

In the interim, it is likely that the Commonwealth will be expected to provide an increasing number of atomic energy sites. Obviously, local environmental considerations, such as the capacity of local cooling waters and the potential conflict with other land uses in an area, will be taken into account. Nevertheless, Pennsylvania's land use plan will probably have to include more atomic power plant sites than might be considered popularly acceptable at this moment of extreme environmental concern about the dangers of these plants.

This is because Pennsylvania is well located to produce electricity for the East Coast megalopolis while providing areas in which population density is so low that the risks are minimized. Probably no other state in the East provides such a propitious combination of circumstances for such development. If one assumes that atomic energy plants must go somewhere, and if the very long distance transmission of electrical energy is not likely to be economically feasible for some time in the future, the Commonwealth might do well to consider this an opportunity rather than a burden.

A state-wide land use policy could be helpful in designating areas in which atomic power plants would be acceptable and discouraging other forms of development which would reduce their acceptability or increase their environmental risk to surrounding residents. If it could be determined in advance where such sites should be, many of the objections which arise in local communities could be forestalled. And Pennsylvania could become a major energy exporter in a way which can be environmentally less degrading than the mining of coal.

Such a development would also have a secondary impact on those industries which produce equipment for atomic reactors, power generation, and power transmission. These industries are already well-

established in Pennsylvania, but could enjoy further growth through an increase in their local market. Such growth could establish further economies of concentration which would make Pennsylvania a dominant source of such equipment for atomic power plant construction in other parts of the country.

8. Economic Growth and Equity

From the foregoing discussion, one can draw the preliminary conclusion that a state-wide land use policy is likely to have both positive and negative effects on the total growth and well-being of Pennsylvania's economy. Whether these effects will balance or not will have to be determined by careful, detailed study.

The importance of "environmentally-questionable" activities in the Commonwealth's economy provides one type of overview. Using round figures, value added in manufacturing in Pennsylvania in 1967 was about \$20 billion.* Of this, more than one-quarter was in industries which have important environmental effects or relatively high pollution control costs. The breakdown among these industries was about \$3 1/2 billion in primary metals, \$1 1/3 billion in chemicals, \$1/4 billion in petroleum refining, \$1/6 billion in paper mills, \$1/10 billion in concrete, gypsum, and plaster products, and \$1/13 billion in the production of cement. One should add to this total the roughly \$1 billion of minerals produced by the Commonwealth.

Even if land use control poses only minor threats to these major industrial sectors, stiff reactions to such control may be expected. This is because Pennsylvania is economically less healthy in many ways than the other states of the Northeast. One

* 1972 Data not available at this writing

way of gauging this is to note that Pennsylvania had the lowest rate of population growth between 1960 and 1970, the lowest per capita income, and the lowest median value of owner-occupied housing in 1970 among Northeastern states, except for Maine, and the highest median age of population in the United States, except for Florida.

All of these characteristics suggest an economy growing slow enough to encourage the out-migration of the young, and heavily dependent upon manufacturing--too much of it low wage--for its economic base. In fact, about one-quarter of all manufacturing employment in the industrial Northeast is in Pennsylvania which has substantially less than one-quarter of the region's population.

Pennsylvania is also somewhat of an anomaly. Despite the heavy concentration in manufacturing, the State has the lowest overall population density in the Northeast, except for Northern New England, and the highest value of farm production, close to \$1 billion in 1969, except for New York. In this sense, it is more like the Mid-West than the Northeast, since it is in the East North Central states that one finds heavy industrial production in combination with extensive agricultural production.

What this all means is that Pennsylvania has the economic base for continued moderate growth, the as yet unspoiled areas for preservation and recreation, and the spatial flexibility to provide a variety of locations and environments for diverse economic and human activities. It is clearly not too late for land use policy to make the best of these opportunities and potentials for the future.

The real problem will be in the dislocations caused by the lack of encouragement of economic growth in some industrial sectors and regions of Pennsylvania and its increased encouragement in others. If agriculture, recreation, research and other service activities, and even atomic power production are boosted, as a result of land use policy, this will be a relative boon to these industries, their pre-

sent and potential employees, and the areas where they are encouraged or permitted by policy to locate. Other areas, industries, and workers may not be so fortunate.

In particular, it is hard to see how land use policy will benefit, in the short run, most of the depressed coal-mining areas and center cities of Pennsylvania. True, present lack of land use control is not helping them either. But Commonwealth policy which has distinctly differential benefits among groups and regions must be acceptable to a majority of the whole. The disadvantaged may feel that the Commonwealth should direct its efforts first to redressing past imbalances. Yet state-wide land use policy may appear, temporarily, to exacerbate them.

This should not, in any way, be construed as an argument against the proposed policies. Rather it is an attempt to encourage a realistic recognition of the need to deal with some of the difficult economic problems of certain parts of the Commonwealth along with the environmental, development-control, and land use problems of all.

C. Revenue Implications of State-wide Land Use Policy

A land use policy for Pennsylvania will have fiscal impacts on both local and state government. The size and distribution of these impacts will be closely related to the size and distribution of the economic impacts discussed in the previous section. In the present section, revenue effects are discussed; cost effects are covered in the following section.

1. State Revenues

First, if the imposition of state-wide land use policy actually results in a slower rate of economic growth, this will mean a slower rate of growth in both corporate and other business taxes, and in personal income, sales, and other taxes paid by individuals. However, the effects are likely to be unequal between business and per-

sonal taxes as well as among various types of businesses and groups of individuals. For example, a policy which encourages recreation and agriculture relative to mining and manufacturing is likely to shift the burden relatively from businesses to persons. And if one assumes that lower-income vacationers are those most likely to stay within the state, and that net income per farm is likely to remain low, this could mean a relative shift in tax burden to lower-income groups. Consideration of these effects may suggest some changes in state tax policy to complement the land use policy.

More important, if revenue growth rates were to decline, the Commonwealth might feel that it was at a competitive disadvantage due to its stringent land use controls and seek to compensate through other policies to attract industrial development. For this purpose, Pennsylvania might reduce certain corporate and business taxes in the hope of regaining in locational attractiveness what it appears to be losing by tough development restrictions. Such a tax policy would probably not be successful and generally not be responsible while further shifting tax burdens from business to individuals.

Although it is probably not truly comparable, it is worth considering the case of New Hampshire where land use and fiscal policy have appeared to be (perhaps unintentionally) working together to encourage rapid growth in the economy and, coincidentally, in tax revenues. The state has gained a comparative advantage through a combination of fairly weak land use controls in comparison to Vermont and Maine, and low tax rates in comparison with Massachusetts. The former makes possible profitable, but somewhat shoddy, recreational and vacation-home development. The latter helps to attract industry suburbanizing out of Boston for whom the labor supply and specialized services of the Boston SMSA are still accessible from locations in southern New Hampshire.

Since the natural recreation areas are in the central and northern parts of New Hampshire, there is very little real conflict

between recreational and industrial development. Hence, the combination of policies may be short-sighted. Restrictions requiring a higher quality of recreational development would not affect industrial growth and would assure a long-run maintenance of the environmental, scenic, and other characteristics which make the state attractive for recreation and second homes.

Furthermore, land use restrictions on industry and its accompanying residential and business development might slow the rate of growth. But a high growth rate is likely, in the long run, to lead to a rate of growth in demand for public services which is faster than the growth in revenues. This is especially likely as increasing numbers of the workers currently living in Massachusetts migrate to permanent residences in New Hampshire to take advantage of both the low taxes and recreational opportunities. The final consequence is likely to be rising tax rates and a less-than-satisfactory pattern of land development.

The implications of the foregoing for Pennsylvania may not be entirely clear, although there is probably general agreement that the era of growth--as a goal in and of itself--is, or should be, past. The important point to be pursued is whether tax policies which promote growth have even their desired effects in the long run, aside from the undesired side effects which they may also have. These are questions which cannot be answered without obtaining a better understanding of the two-way relationships between economic and revenue growth, and the relationship of both to growth in public costs. The latter will be discussed further below.

The New Hampshire and Pennsylvania situations are comparable in one sense. Both have fairly distinct regions, some of which can probably be best used for urban and industrial development, and others for which recreation and second-home development is the most appropriate use. The present extent of overlap of areas for develop-

ment and areas to be kept relatively natural is comparatively small, although increasing rapidly in Pennsylvania with the Poconos and Lancaster County prime examples of land use conflict.

In such less-developed areas, the fiscal value of tourist, vacation, and second-home development can be particularly significant for local government. Numerous studies have shown that vacation homes can provide a substantial proportion of local tax revenues without generating equivalent public costs, particularly for schools. Except in Pennsylvania's Northeast, the rate of conversion to year-round homes is likely to be slow. Furthermore, tourists and vacationers from out-of-state can be an important component of the economic export base of both the Commonwealth and these local areas, generating sales tax and other revenues.

2. Property Taxes

One notable feature of Pennsylvania's fiscal base is the fact that there is less reliance on the property tax for the provision of educational and public services than in many other states. In fact, the property tax per capita in Pennsylvania is about one-half of that in Massachusetts, New Jersey, or New York.

The relatively low average level of property tax has both positive and negative aspects from the point of view of implementing a land use policy. On the one hand, low property tax rates can help to keep land in agricultural, forest, and other open uses from being subdivided and developed quite as rapidly as where tax pressures on owners of large tracts are particularly strong. On the other hand, a low average level of property tax can prevent the State from capturing a maximum potential revenue from out-of-state owners of vacation and second-home property who are generally not subject to State income taxes and other forms of revenue collections. And low taxes on undeveloped land may encourage speculation.

Nevertheless, property tax policy can and should be an integral

part of land use policy. This fact is well-recognized and attempts have been made both in Pennsylvania and other states to use tax abatements as a means, for example, of retaining private land in open space or agricultural use. It is not clear how effective such policies have been. Even in cases where there are "back tax penalties" to those who have received an abatement and later sell their land for development, the profits to be made from development generally far outweigh the costs of the penalties.

However, one should not conclude from this that tax policy, where used to encourage socially and environmentally desirable land uses, has no value. On the contrary, property tax abatement in coordination with other land use controls may be very effective. In fact, some property tax adjustment is probably a necessary adjunct to land use policy. Policies directed toward the maintenance of private holdings in open space uses, where development pressures might otherwise have caused the conversion of land, will raise issues of equity. It is true that these issues, when they have arisen in recent court cases, have often been decided in favor of public control of land use, despite its possible cost to the owner. However, most such cases have been in those rapidly urbanizing areas where stringent zoning and subdivision controls clearly have been justified.

A state-wide policy, however, will apply land use controls to less-developed areas of Pennsylvania which have previously either not been zoned, or in which zoning controls have been relatively flexible in their application. In some of these areas the health, safety, and public welfare justifications for zoning may be more difficult to prove than in areas where development pressures are either strong or imminent, and the requirements for orderly development are clear.

The less-developed areas of the Commonwealth already exhibit relatively low levels of assessment, especially for undeveloped land. The important issue is whether assessments will remain low, even in the face of rising development pressures, on lands slated for long-term, low-density or open uses. Assessors have often correctly assumed that zoning will be changed once development pressures become strong enough. And the push, now especially strong in such states as Massachusetts, for "equalization" of assessment reinforces this behavior.

Thus, land zoned for very low-density uses has been reassessed as if higher density uses would eventually be allowed. This is one of the surest guarantees that zoning restrictions will indeed be broken and down-zoning be permitted. But if the restrictions are really to be permanent, equity requires that this fact be recognized in assessment policy.

If property tax policy is to be used as an adjunct to other land use policy, the shift in the burden of providing revenues for local public services will have to be taken into account. One could argue that, since restrictive land use controls benefit the Commonwealth as a whole, the Commonwealth should bear the burden. In some cases, this may be the only fair solution.

But local needs and ability to pay must also be taken into consideration. Very low-density development generates few public costs. And undeveloped lands, especially those not used for farming, are often held by wealthy owners. Such owners can usually afford to pay reasonable property tax bills without being forced into selling for development. And if they can save on both their income and property taxes by donating or selling permanently restrictive easements or their development rights, this can often serve the purposes of overall land use policy.

However, there will doubtless be communities for which newly restrictive land use policy will cause serious fiscal difficulties. In such cases, the Commonwealth must be able to help out. And some changes in State aid to local government may be necessary anyway if it becomes clear that local property taxes must become a smaller proportion of the fiscal base of local school systems.

As with the schools, a state-wide land use policy may require heavier reliance on income, wealth, or other forms of taxation as a substitute for some local property taxes. Such state taxes provide a means of redistributing revenues equitably among local governments. And properly designed state tax policy can require large land owners to pay their fair share of local revenue indirectly without encouraging the development of environmentally valuable lands. State-wide land use policy should be looked upon as challenging opportunity for state and local tax revisions which would both support the land use policy, equalize the relative burden on those who are taxed, and distribute fairly the revenues necessary for local services.

D. Public Cost Implications of State-wide Land Use Policy

The proposed land use policies for Pennsylvania will generate both additional costs and cost savings for the Commonwealth and its local governments. The actual dollar changes in public costs are as difficult to predict as changes in revenues without careful analysis. Thus, only the major components and directions of change are outlined here.

1. Commonwealth Costs

The most obvious new cost of state-wide land use policy is the cost of planning, instituting, implementing, and monitoring the pro-

gram itself. Some of these activities will replace work currently being done by such Departments as Environmental Resources and Community Affairs. And the proposed federal legislation, if it passes, will provide financial aid to the Commonwealth, at least in the early stages.

But the Commonwealth will have to finance new work in assembling existing land use information, collecting new information, codifying and analyzing the data, and developing an efficient monitoring system. Ecological and environmental data, of a type not generally available, will have to be collected for selected areas. And a variety of analyses, including one of economic and fiscal effects, will eventually have to be performed.

Estimates from other states, such as Colorado and Florida, suggest that about \$5 million is needed to get started, including the setting up of a data system. Around \$3.5 million per year is then required to carry on planning, administration, and monitoring. A rash of court cases and other contingencies could raise this total substantially.

On the other hand, the proposed federal legislation would authorize \$117 million a year for the next eight years. If this were appropriated, Pennsylvania would probably get more than a fiftieth of it. And Title 701 funds are already being used to aid State land use planning efforts.

Another major cost to the Commonwealth would arise in those cases in which it was deemed necessary to purchase land in fee or obtain less-than-fee rights. Hopefully state-wide land use policies could be implemented without a major increase in purchases over and above the programs to expand State parks and forests. But some cases will doubtless arise where the courts will determine that the land use restrictions constitute a taking and will require compensation.

And in other cases, purchase of land may turn out in the long run to be the most practical way of carrying out land use policy.

Examples of the latter might be some of those farmlands which, as part of the overall policy, should be kept in farming. Several states have recently passed bond issues for the purpose of acquiring agricultural land which is then rented back to farmers. Suffolk County on Long Island has also passed its own bond issue, and it is possible that some local towns on Long Island may follow this lead and purchase farmland themselves.

This process is likely to be costly, in the early years of the program at least, because the first lands to be purchased are probably those on which development pressure is the strongest. Even under stringent development restrictions, the market value of such land may be very high. In particular, the amortization costs are likely to be higher than the rent which a farmer can pay and still receive a reasonable return for his labor and capital investment. The difference between the amortization costs and the rent must come from public funds.

Another possibility is that state-wide land use policy will encourage relatively high-density, self-contained, new centers somewhat distant from existing cities. Whether these are really "new towns" or just intensive and well-ordered development of existing towns, they will probably not be possible without some Federal and State aid. Aid to local government to provide public services during the development period might be the minimum needed to achieve the desired development pattern. In addition, the provision of low and middle-income housing in such "new" developments will require state subsidization. Such housing is likely to be even more expensive where land use controls and/or public purchase have removed substantial acreage from potential development, thereby forcing up the price of the developable land.

Savings in costs will arise from a number of sources. Some of these savings are difficult to allocate in advance between State and local government. But it is clear that the Commonwealth bears the financial brunt of disasters such as floods. Control of development in wetlands and flood plains state-wide can mean a substantial long-run saving to Pennsylvania as the heavy state costs for relief, housing, and rebuilding in the flood-impacted Wilkes-Barre area can attest.

Other savings for the Commonwealth may be harder to measure, though they are no less real. There are a variety of forms of environmental degradation caused by uncontrolled disposal of sewage, air pollutants, and solid waste. Land use control does not, itself, eliminate these problems. But rational patterns of development can reduce the costs of proper disposal; and these are costs which are partly borne by the Commonwealth.

Controlled development can also permit economies in the provision of open space. Policies which channel and limit the spread of development can alleviate the speculative pressure on lands needed soon, or in the future, for public use. In addition, efficient development patterns can reduce the costs of providing state highways and other services.

2. Local Costs

The net savings to some local governments are likely to be more important, in the short run, than savings to the Commonwealth. Logical patterns of controlled development at efficient densities have been shown repeatedly to be cheaper to provide with public services than typical poorly-controlled development. Economies in the provision of sewerage, streets, fire and police protection, and other services come immediately to mind. Although there is a wide diversity of opinion about the extent of these savings, there is fairly

general agreement that, when accurately measured, they prove to be significant.

Communities which currently have weak or non-existent zoning and subdivision controls and are undergoing rapid development will be particularly affected by state-wide land use policy. Their public service cost savings may not be immediately noticeable since they are also in a period of rapid expansion in public services and their accompanying budgets. But the savings can indeed be substantial when measured in the long run. Merely the prevention of "leap-frog" development can generate significant economies.

On the other hand, it is hard to imagine how state-wide land use policy will add significantly to the costs of local government. The real question is whether the potential local revenue losses in some communities will be matched by comparable savings in the same communities. Restriction of assessed property values through control of development or the granting of abatements should nominally be accompanied by slower rises in local public costs. But in cases where local imbalances may exist, state policy may be required to redress them through revenue redistribution.

E. Conclusions

One can argue that Pennsylvania has been fortunate in having been relatively slow-growing for the past few decades. This has, perhaps, been costly in terms of jobs, income, and tax revenues. Nevertheless, relatively less irreversible damage has been done in Pennsylvania than in boom states such as Florida, Arizona, and California during the recent past when an improved technical ability to create havoc has been conjoined with weak constraints on random urbanization.

A possible exception to this is the southeastern part of Pennsylvania although, even here, suburbanization has been a bit more

orderly than around many other major cities. And viable agriculture has been maintained fairly close to Philadelphia. Perhaps Pennsylvania has been blessed by the fact that the highway builders lacked either the will or the financial capability to pave over the whole region while the suburban train lines, although perilously close to disaster, have managed to retain a semblance of service and ridership. One salvation for the Philadelphia region is the fact that cross-Delaware transportation improvements, coupled with reasonably lax restrictions on development, have resulted in a large and growing proportion of suburbanization locating on the New Jersey side of the river.

In any case, Pennsylvania seems to have been saved from the worst effects of recent growth. With less than 5 percent of its land urbanized, the Commonwealth has greater flexibility in its future land use planning than many other urban, industrial states. This is the challenge and opportunity to preserve so much that is valuable in Pennsylvania's environment.

The best judgment that can be made at this moment is that the positive and negative economic effects of state-wide land use policy will tend, in the long run, at least to balance out. A national policy which eliminates environmentally-destructive competition among the states would help to assure this result.

State government will incur new costs for which new revenues may not be automatically generated. And the Commonwealth will have to deal with new problems in the redistribution of public revenues among local governments and of state tax burdens and subsidies among income groups. At the same time, however, the overall total needs of local government for state subsidy may be reduced by the more efficient patterns of development which a state-wide land use policy would foster.

Finally, there is no reason to believe that the net public cost of better land use control will not be more than matched by the benefits which Pennsylvanians will receive. The value of rational land use control may not be inestimable. But it will prove to be, once estimated, much larger than the total costs of achieving it.

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